

GCCCCAGGGCTGGAGAGGTCTGAAGAAAACCTGGAGCCAGCAGCCCGGGCTCCACTCTGGTTCTGAAAGCCCATTC 79
 CCTGGCTCTCCGGCTCTCCACCCACCTCTCTCAGGCTTSCAGCTCAAGGGTTGATCTCAGGAGTCCAGGACCCAGG 158
 AGAGGGAAAGAATCTGAGGAACACAGTCAAGCTTCCACCCCCATCTCCCTCAACATCTCCCTCAACCT 237
 CACCCCTCCCTGCCTGGCCCTGGACCCCATCCAGGACCTCCCTATCAGGCTGACTTCTTCCAGTGTCTTCAGGCCCCTC 316
 TGGGCTCCCTCCCTCCCTGGCTTCTACCACTCCCTCTATCAGGCTGACTTCTTCCAGTGTCTTCAGGCCCCTC 395
 ACTGGGTTCCGAATGCTGATAAGAGACGGTAAGAGCAAGGCAAGGACAGCACTGTTCTCTGGCTGCTGATAACCT 474

 M A G G A W G 7
 CACACCTGGGAACATCCCGGAGACCCCTTTAACCTGGGACAGAG ATG GCT GGC GGA GCC TGG GGC 543

 R L A C Y L E F L K K E E L K E F Q L L 27
 CGC CTG GCC TGT TAC TTG GAG TTC CTG AAG AAG GAG GAG CTG AAG GAG TTC CAG CTT CTG 603

 L A N K A H S R S S S G E T P A Q P E K 47
 CTC GCC AAT AAA GCG CAC TCC AGG AGC TCT TCG GGT GAG ACA CCC GCT CAG CCA GAG AAG 663

 T S G M E V A S Y L V A Q Y G E Q R A W 67
 ACG AGT GGC ATG GAG GTG GCG TCG TAC CTG CTG GCT CAG TAT GGG GAG CAG CGG GCC TGG 723

 D L A L H T W E Q M G L R S L C A Q A Q 87
 GAC CTA GCC CTC CAT ACC TGG GAG CAG ATG GGG CTG AGG TCA CTG TGC GCC CAA GCC CAG 783

 E G A G H S P S F P Y S P S E P H L G S 107
 GAA GGG GCA GGC CAC TCT CCC TCA TTC CCC TAC AGC AGC CAA CCC CAC CTG GGG TCT 843

 P S Q P T S T A V L M P W I H E L P A G 127
 CCC AGC CAA CCC ACC TCC ACC GCA GTG CTA ATG CCC TGG ATC CAT GAA TTG CCG GCG GGG 903

 C T Q G S E R R V L R Q L P D T S G R R 147
 TGC ACC CAG GGC TCA GAG AGA AGG GTT TTG AGA CAG CTG CCT GAC ACA TCT GGA CGC CGC 963

 W R E I S A S L L Y Q A L P S S P D H E 167
 TGG AGA GAA ATC TCT GCC TCA CTC TAC CAA GCT CTT CCA AGC TCC CCA GAC CAT GAG 1023

 S P S Q E S P N A P T S T A V L G S W G 187
 TCT CCA AGC CAG GAG TCA CCC AAC GGC CCC ACA TCC ACA GCA GTG CTG GGG AGC TGG GGA 1083

 S P P Q P S L A P R E Q E A P G T Q W P 207
 TCC CCA CCT CAG CCC AGC CTA GCA CCC AGA GAG CAG GAG CCT CCT GGG ACC CAA TGG CCT 1143

 L D E T S G I Y Y T E I R E R E R E K S 227
 CTG GAT GAA AGC TCA GGA ATT TAC TAC ACA GAA ATC AGA GAA AGA AGA GAG AAA TCA 1203

 E K G R P P W A A V V G T P P Q A H T S 247
 GAG AAA GGC AGG CCC CCA TGG GCA GCG GTG GTA GGA AGC CCC CCA CAG GCG CAC ACC AGC 1263

 L Q P H H H P W E P S V R E S L C S T W 267
 CTA CAG CCC CAC CAC CCA TGG GAG CCT TCT GTG AGA GAG AGC CTC TGT TCC ACA TGG 1323

 P W K N E D F N Q K F T Q L L L Q R P 287
 CCC TGG AAA AAT GAG GAT TTT AAC CAA AAA TTC ACA CAG CTG CTA CTT CTA CAA AGA CCT 1383

 H P R S Q D P L V K R S W P D Y V E E N 307
 CAC CCC AGA AGC CAA GAT CCC CTG GTC AAG AGA AGC TGG CCT GAT TAT GTG GAG GAG AAT 1443

 R G H L I E I R D L F G P G L D T Q E P 327
 CGA GGA CAT TTA ATT CAG ATC AGA GAC TTA TTT GGC CCA GGC CTG GAT ACC CAA GAA CCT 1503

 R I V I L Q G A A G I G K S T L A R Q V 347
 CGC ATA GTC ATA CTG CAG GGG GCT GGT GGA ATT GGG AAG TCA ACA CTG GCC AGG CAG GTG 1563

FIG. 1A

K S A W G R G Q L Y G D R F Q H V F Y F 367
 RAG GAA GCC TGG GGG AGA GGC CAG CTG TAT GGG GAC CCC TTC CAG CAT GTC TTC TAC TTC 1623

S C R E L A Q S K V V S L A E L I G K D 387
 AGC TGC AGA GAG CTG GCC CAG TCC AAG GTG GTG AGT CTC GCT GAG CTC ATC GGA AAA GAT 1683

G T A T P A P I R Q I L S R P E R L L F 407
 GGG ACA GCC ACT CCC GCT CCC ATT AGA CAG ATC CTG TCT AGG CCA GAG CGG CTG CTC TTC 1743

I L D G V D E P G W V L Q E P S S E L C 427
 ATC CTC GAT GGT GCA GAT GAG CCA GGA TGG GTC TTG CAG GAG CGG AGT TCT GAG CTC TGT 1803

L H W S Q P Q P A D A L L G S L L G K T 447
 CTG CAC TGG AGC CAG CCA CAG CGG GCG GAT GCA CTG CTG GGC AGT TTG CTG GGG AAA ACT 1863

I L P E A S F L I T A R T T A L Q N L I 467
 ATA CTT CCC GAG GCA TCC TTC CTG ATC ACG GCT CGG ACC ACA GCT CTG CAG AAC CTC ATT 1923

P S L E Q A R W V E V L G F S E S S R K 487
 CCT TCT TTG GAG CAG GCA CGT TGG GTC GAG CGG CTG GGG TTC TCT GAG TCC AGC AGG AAG 1983

E Y F Y R Y F T D E R Q A I R A F R L V 507
 GAA TAT TTC TAC AGA TAT TTC ACA GAT GAA AGG CAA GCA ATT AGA GCC TTT AGG TTG GTC 2043

K S N K E L W A L C L V P H V S W L A C 527
 AAA TCA AAC AAA GAG CTC TGG GCC CTG TGT CTC TGG GTG TCC TGG CTG GCC TGC 2103

T C L M Q Q M K R K E K L T L T S K T T 547
 ACT TGC CTC ATG CAG ATG AAG CGG AAG GAA AAA CTC ACA CTG ACT TCC AAG ACC ACC 2163

T T L C L H Y L A Q A L Q A Q P L G P Q 567
 ACA ACC CTC TGT CTA CAT TAC CTT GCC CAG GCT CTC CAA GCT CAG CCA TTG GGA CCC CAG 2223

L R D L C S L A A E G I W Q K K T L F S 587
 CTC AGA GAC CTC TGC TCT CTG GCT GAG CGG ATC TGG CAA AAA AAG ACC CTT TTC AGT 2283

P D D L R K H G L D G A I I S T F L K M 607
 CCA GAT GAC CTC AGG AAG CAT CGG TTA GAT GGG GCC ATC ATC TCC ACC TTC TTG AAG ATG 2343

G I L Q E H P I P L S Y S F I H L C F Q 627
 GGT ATT CTT CAA GAG CAC CGG ATC CCT CTG AGC TAC AGC TTC ATT CAC CTC TGT TTC CAA 2403

E F F A A M S Y V L E D E K G R G K H S 647
 GAG TTC TTT GCA GCA ATG TCC TAT GTC TTG GAG GAT GAG AAG GGG AGA GGT AAA CAT TCT 2463

N C I I D L E K T L E A Y G I H G L F G 667
 AAT TGC ATC ATA GAT TTG GAA AAG ACG CTA GAA GCA TAT GGA ATA CAT GGC CTG TTT GGG 2523

A S T T R F L L G L L S D E G E R E M E 687
 GCA TCA ACC ACA CGT TTC CTA TTG GGC CTG TTA AGT GAT GAG CGG GAG AGA GAG ATG GAG 2583

N I F H C R L S Q G R N L M Q W V P S L 707
 AAC ATC TTT CAC TGC CGG CTG TCT CAG CGG AGG AAC CTG ATG CAG TGG GTC CCG TCC CTG 2643

Q L L L Q P H S L E S L H C L Y E T R N 727
 CAG CTG CTG CTG CAG CCA CAC TCT CTG GAG TCC CTC CAC TGC TTG TAC GAG ACT CGG AAC 2703

K T F L T Q V M A H F E E M G M C V E T 747
 AAA ACG TTC CTG ACA CAA GTG ATG GCC CAT TTC GAA GAA ATG GGC ATG TGT GTC GAA ACA 2763

D M E L L V C T F C I K F S R H V K K L 767
 GAC ATG GAG CTC TTA GTG TGC ACT TTC TGC ATT AAA TTC AGC CGC CAC GTG AAG AAG CTT 2823

Q L I E G R Q H R S T W S P T M V V L F 787
 CAG CTG ATT CAG CGC AGG CAG CAC AGA TCA ACA TGG AGC CCC ACC ATG GTC GTC CTG TTC 2883

R W V P Y T D A Y W Q I L F S V L K V T 807

FIG. 1B

AGG TGG GTC CCA GTC AGA GAT GCG TAT TGG CAG ATT CTC TTC TGG GTC CTC AAG GTC ACC 1943
 R N L K E L D L S G N S L S H S A V K S 827
 AGA AAC CTG AAG GAG CTG GAC CTA AGT GGA AAC TCG CTG AGC GAC TCT GCA GTG AAG AGT 3003
 L C K T L R R P R C L L E T L R L A G C 847
 CTT TGT AAG ACC CTG AGA CGC CCT CGC TGC CTC CTG GAG ACC CTG CGG TTG GCT GCC TGT 3063
 G L T A E D C K D L A F G L R A N Q T L 867
 GCC CTC ACA GCT GAG GAC TCC AAG GAC CTT GCC TTT GGG CTG AGA GCC AAC CAG ACC CTG 3123
 T E L D L S F N V L T D A G A K H L C Q 887
 ACC GAG CTG GAC CTG AGC TTC ATT GTG CTC ACG GAT GCT GGA GCC AAA CAC CTT TGC CAG 3183
 R L R Q P S C K L Q R L Q L V S C G L T 907
 AGA CTG AGA CAG CGG AGC TGC AAG CTA CAG CGA CTG CAG CTG GTC AGC TGT GCC CTC ACG 3243
 S D C C Q D L A S V L S A S P S L K E L 927
 TCT GAC TGC TCC CAG GAC CTG GCC TCT GTG CTT AGT GCC AGC CCC AGC CTG AAG GAG CTA 3303
 D L Q Q N N L D D V G V R L L C E G L R 947
 GAC CTG CAG CAG AAC AAC CTG GAT GAC GTT GGC GTG CGA CTG CTC TGT GAG GGG CTC AGG 3363
 H P A C K L I R L G L D Q T T L S D E M 967
 CAT CCT GCC TGC AAA CTC ATA CGC CTG CGG CTG GAC CAG ACA ACT CTG AGT GAT GAG ATG 3423
 R Q E L R A L E Q E K P Q L L I F S R R 987
 AGG CAG GAA CTG AGG GCC CTG GAG CAG GAG AAA CCT CAG CTG CTC ATC TTC AGC AGA CGG 3483
 K P S V M T P T E G L D T G E M S N S T 1007
 AAA CCA AGT GTG ATG ACC CCT ACT GAG GGC CTG GAT ACG GGA GAG ATG AGT ATT AGC ACA 3543
 S S L K R Q R L G S E R A A S H V A Q A 1027
 TCC TCA CTC AAG CGG CAG AGA CTC GGA TCA GAG AGG GCG GCT TCC CAT GTT GCT CAG GCT 3603
 N L K L L D V S K I F P I A E I A E E S 1047
 ATT CTC AAA CTC CTG GAC AGC AAG ATC TTC CCA ATT GCT GAG ATT GCA GAG GAA AGC 3663
 S P E V V P V E L L C V P S P A S Q G D 1067
 TCC CCA GAG GTA GTC CGG CTG GAA CTC TTG TGC GTG CCT TCT CCT GCC TCT CAA GGG GAC 3723
 L H T K P L G T D D D F W G P T G P V A 1087
 CTG CAT ACG AAG CCT TTG GGG ACT GAC GAT GAC TTC TGG GGC CCC ACG GGG CCT GTG GCT 3783
 T E V V D K Z K N L Y R V H F P V A G S 1107
 ACT GAG GTC GTT GAC AAA GAA AAG AAC TTG TAC CGA GTT CAC TTC CCT GTC GCA GCT GGC TCC 3843
 Y R W P N T G L C F V M R E A V T V E I 1127
 TAC CGC TGG CCC AAC AGC GGT CTC TGC TTT GTG ATG AGA GAA CGG GTG ACC CCT GTT GAG ATT 3903
 E F C V W D Q F L G E I N P Q H S W M V 1147
 GAA TTC TGT GTG TGG GAC CAG TTC CTG GGT GAG ATC AAC CCA CAG CAC AGC TGG ATG GTG 3963
 A G P L L D I K A E P G A V E A V H L P 1167
 GCA GGG CCT CTC CTG GAC ATC AAG GCT GAG CCT CGA GCT GTG GAA GCT GTG CAC CTC CCT 4023
 H F V A L Q G G H V D T S L F Q M A H F 1187
 CAC TTT GTG GCT CTC CAA CGG GGC CAT GTG GAC ACA TCC CTG TTC CAA ATG GCC CAC TTT 4083
 K E E G M L L E K P A R V E L H H I V L 1207
 AAA GAG GAG CGG ATG CTC CTG GAG AAG CCA GCC AGG GTG GAG CTG CAT CAC ATA GTT CTG 4143
 E N P S F S P L G V L L K M I H N A L R 1227
 GAA AAC CCC AGC TTC TCC CCC TTG CGA GTC CTC CTG AAA ATG ATC CAT AAT GCC CTG CGC 4203
 F I P V T S V V L L Y H R V H P E E V T 1247
 TTC ATT CCC GTC ACC TCT GTG GTG TTG CTT TAC CAC CGC GTC CAT CCT GAG GAA GTC ACC 4263

FIG. 1C

F	H	L	Y	L	I	P	S	D	C	S	I	R	K	E	L	E	L	C	Y	1267
TTC	CAC	CTC	TAC	CTG	ATC	CCA	AGT	GAC	TCC	TCC	ATT	CGG	AAG	GAA	CTG	GAG	CTC	TGC	TAT	4323
R	S	P	G	E	S	Q	L	F	S	E	F	Y	V	G	H	L	G	S	G	1287
CGA	AGC	CCT	CGA	GAA	GAC	CGG	CTG	TTC	TCC	GAG	TTC	TAC	GTT	GGC	CGC	CTG	GGA	TCA	GGG	4383
I	R	L	Q	V	K	D	K	K	D	E	T	L	V	W	E	A	L	V	K	1307
ATC	AGG	CTG	CGA	GTG	AAA	GAC	AAG	AAA	GAT	GAG	ACT	CTG	GTG	TGG	GAG	GCC	TTG	GTG	AAA	4443
P	G	D	L	M	P	A	T	T	L	I	P	P	A	R	I	A	V	P	S	1327
CCA	GGA	GAT	CTC	ATG	CCT	GCA	ACT	ACT	CTG	ATC	CCT	CCA	GCC	CGC	ATA	GCC	GTA	CCT	TCA	4503
P	L	D	A	P	Q	L	L	H	F	V	D	Q	Y	R	E	Q	L	I	A	1347
CCT	CTG	GAT	GCC	CGG	CGG	TTG	CTG	CAC	TTT	GTG	GAC	CAG	TAT	CGA	GAG	CAG	CTG	ATA	GCC	4563
R	V	T	S	V	E	V	V	L	D	K	L	H	G	Q	V	L	S	Q	E	1367
CGA	GTG	ACA	TCG	GTG	GAG	GTT	GTC	TTG	GAC	AAA	CTG	CAT	GGA	CAG	GTG	CTG	AGC	CAG	GAG	4623
Q	Y	E	R	V	L	A	E	N	T	R	P	S	Q	M	R	K	L	F	S	1387
CAG	TAC	GAG	AGG	GTG	CTG	GCT	SAG	AAC	ACG	AGG	CCC	AGC	CAG	ATG	CGG	AAG	CTG	TTC	AGC	4683
L	S	Q	S	W	D	R	K	C	K	D	G	L	Y	Q	A	L	K	E	T	1407
TG	AGC	CAG	TCC	TGG	GAC	CGG	AAG	TGG	AAA	GAT	GGA	CTC	TAC	CAA	GCC	CTG	AAG	GAG	ACC	4743
H	P	H	L	I	M	E	L	W	E	K	G	S	K	K	G	L	L	P	L	1427
CAT	CCT	CAC	CTC	ATT	ATG	GAA	CTC	TGG	GAG	AAG	GCC	AGC	AAA	AAG	GGA	CTC	CTG	CCA	CTC	4803
S	S	*																		1430
AGC	AGC	TGA																		4812
AGTATCACACCCAGCCCTTGACCCCTTGAGTCCTGGCTTGGCTGACCCCTCTTGGGTCTAGTTCTTCTCTGCAAA																				4891
CAAGTTGCCATCTGGTTTGCTTCCAGCACTAAAGTAATGGAACCTTTGATGATGCCCTTGTGGCATTATGTGTCCAT																				4970
GCCAGGGATGCCACAGGGGGCCCGAGTCCAGGTGGCTAACAGCATCTCAGGAATGTCATCTGGAGCTGGCAAGACC																				5049
CCTGCAGACCTCATAGAGCCTCATCTGGTGGCCACAGCAGCCAGGCTAGAGCCCTCCGGATCCCATCAGGGCAGAAG																				5128
AGGAATAGGAGGGCATCGAACCATTTGCCCTGGCTGTCAACAGGGTAGGCCCCAAAATTGGGGTTCAAGGTGGAG																				5207
GCCACCTGGATTCTGGCTTGTACAGGAAGATCTACAAGAGCAAGCCAACAGAGTAAAGTGGAGGAAGTTATTCTG																				5286
AAAATAAGGAGTATCACAGCTTTAGAATTGTCTAGCAGGCTTCCAGTTTACCAAGAAAACCCCTATAAAATTAA																				5365
AAAATTTTACTAAATTAAAGAATTAAAAAAATACAAAAAAAGAAAAAAATGAAAATAAGGAATAAGAAGTTACCTAC																				5444
AAAATTTTACTAAATTAAAGAATTAAAAAAATACAAAAAAAGAAAAAAATGAAAATAAGGAATAAGAAGTTACCTAC																				5444

FIG. 1D

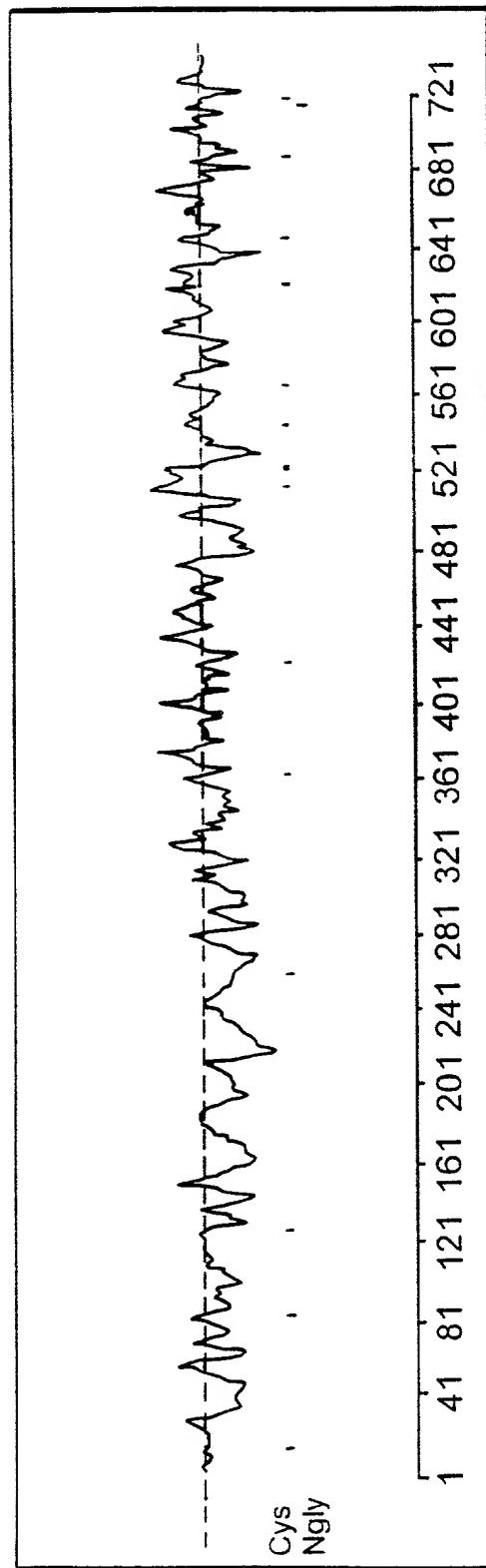


FIG. 2

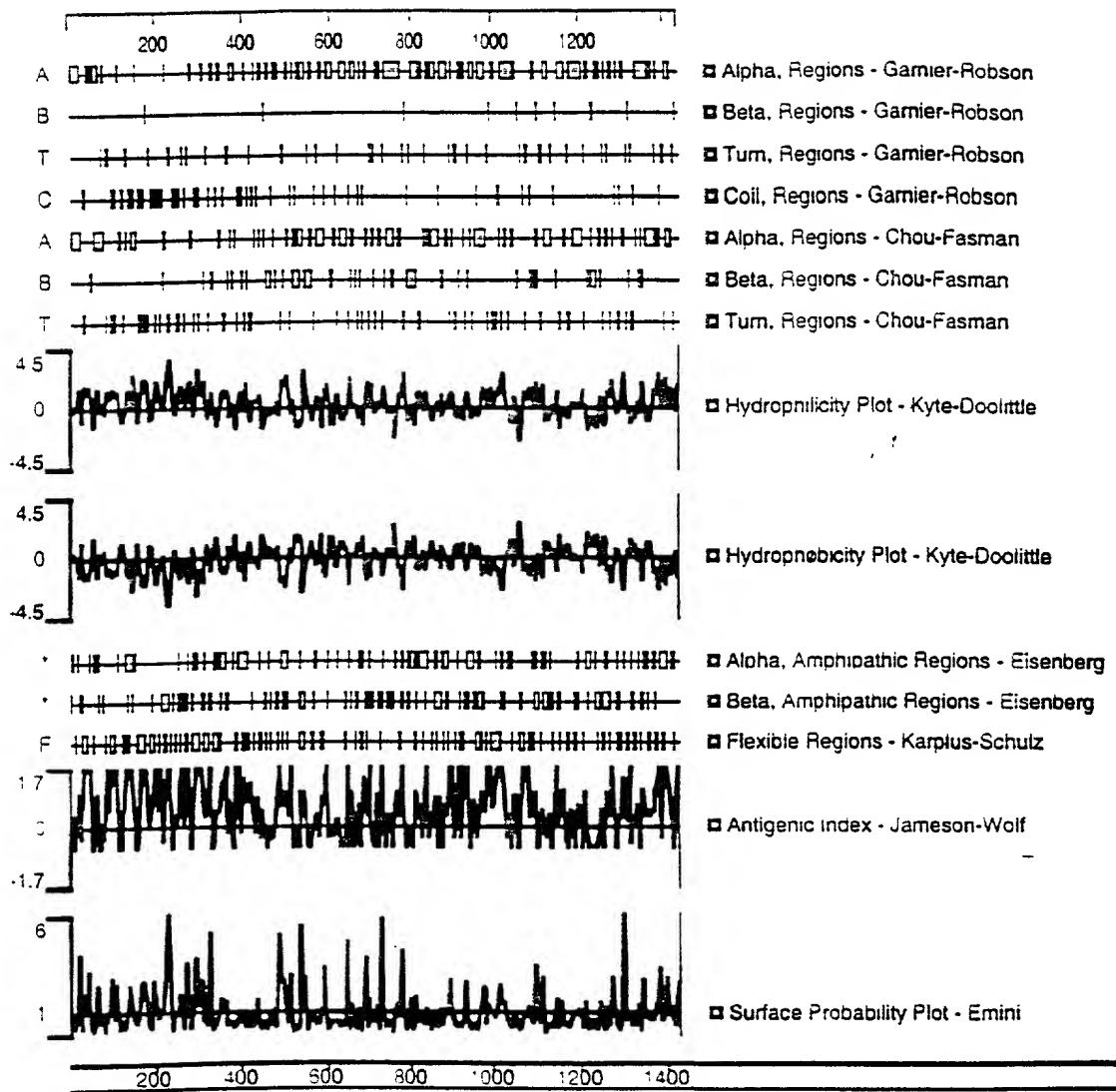


FIG. 3

CTGGTTCTGAACTTCTTCAATAATGTTCATAGAGAAGGAGGGCTGTCTGAGATTCAGGGAAACRAGCTCTCAGGA 79
 CTTCCGGTCCCCATGATGGCTGTGGGGCTAAACGGGTTAGTGCAAGCATCTGGGCCATCTTCATGGTAAAAAGAT 158
 ACAGTAAAGACATAAAATACACATTTGACAAATGGAAAAAGGAGTGTCCAGAAAAGAGTAGCAGCAGTGAGGAAGAG 237

 CTGCCGAGACGGGTATACAGGGAGCTACCCCTGTGTTCTGAGACCCCTTGTGACATCTCACATTTTCCAGAG 313

 M M R Q R Q S H Y C S V L F L S V N Y L 20
 ATG ATG AGA CAG AGG CAG AGC CAT TAT TGT TCC GTG CTG TTC CTC AGT GTC AAC TAT CTG 373

 G G T F P G D I C S E E N Q I V S S Y A 40
 GGG GGG ACA TTC CCA GGA GAC ATT TGC TCA GAA GAG AAT CAA ATA GTT TCC TCT TAT GCT 433

 S K V C F E I E E D Y K N R Q F L G P E 60
 TCT AAA GTC TGT TTT GAG ATC GAA GAA GAT TAT AAA AAT CGT CAG TTT CTG GGG CCT GAA 493

 G N V D V E L I D K S T N R Y S V W F P 80
 GGA AAT GTG GAT GTT GAG TTG ATT GAT AAG AGC ACA AAC AGA TAC AGC GTT TGG TTC CCC 553

 T A G W Y L W S A T G L G F L V R D E V 100
 ACT GCT GGC TGG TAT CTG TGG TCA GCC ACA GGC CTC GGC TTC CTG GTC AGG GAT GAG GTC 613

 T V T I A F G S W S Q H L A L D L Q H H 120
 ACA GTG AGC ATT GCG TTT CGT TCC TGG AGT CAG CAC CTG GCC CTG GAC CTG CAG CRC CAT 673

 E Q W L V G G P L F D V T A E P E E A V 140
 GAA CAG TGG CTG GTG GGC CCC TTG TTT GAT GTC ACT GCA GAG CCA GAG GAG GCT GTC 733

 A E I H L P H F I S L Q G E V D V S W F 160
 GCC GAA ATC CAC CTC CCC CAC TTC ATC TCC CTC CAA GGT GAG GTG GAC GTC TCC TGG TTT 793

 L V A H F K N E G M V L E H P A R V E P 180
 CTC GTT GCC CAT TTT AAG AAT GAA GGG ATG GTC CTG GAG CAT CCA GCC CGG GTG GAG CCT 853

 F Y A V L E S P S F S L M G I L L R I A 200
 TTC TAT GCT GTC CTG GAA AGC CCC AGC TTC TCT CTG ATG GGC ATC CTG CTG CGG ATC CCC 913

 S G T R L S I P I T S N T L I Y Y H P H 220
 AGT GGG ACT CGC CTC TCC ATC CCC ATC ACT TCC AAC ACA TTG ATC TAT TAT CAC CCC CAC 973

 P E D I K F H L Y L V P S D A L L T K A 240
 CCC GAA GAT ATT AAG TTC CAC TTG TAC CTT GTC CCC AGC GAC GCC TTG CTA ACA AAG GCG 1033

 I D D E E D R F H G V R L Q T S P P M E 260
 ATA GAT GAT GAG GAA GAT CGC TTC CAT GGT GTG CGC CTG CAG ACT TCG CCC CCA ATG GAA 1093

 P L N F G S S Y I V S N S A N L K V M P 280
 CCC CTG AAC TTT GGT TCC AGT TAT ATT GTG TCT AAT TCT GCT AAC CTG AAA GTA ATG CCC 1153

 K E L K L S Y R S P G E I Q H F S K F Y 300
 AAG GAG TTG AAA TTG TCC TAC AGG AGC CCT GGA GAA ATT CAG CAC TTC TCA AAA TTC TAT 1213

 A G Q M K E P I Q L E I T E K R H G T L 320
 GCT GGG CAG ATG AAG GAA CCC ATT CAA CTT GAG ATT ACT GAA AAA AGA CAT GGG ACT TTG 1273

 V W D T E V K P V D L Q L V A A S A P P 340
 GTG TGG GAT ACT GAG GTG AAG CCA GTG GAT CTC CAG CTT GTC GCT GCA TCA GCC CCT CCT 1333

 P F S G A A F V K E N H R Q L Q A R M G 360
 CCT TTC TCA GGT GCA GCC TTT GTG AAG GAG AAC CAC CGG CAA CTC CAA GCC AGG ATG GGG 1393

 D L K G V L D D L Q D N E V L T E N E K 380
 GAC CTG AAA GGG GTG CTC GAT GAT CTC CAG GAC AAT GAG GTT CTT ACT GAG AAT GAG AAG 1453

 E L V E Q E K T R Q S K N E A L L S M V 400

FIG. 4A

GAG CTG GTG GAG CAG GAA AAG ACA CGG CAG AGC AAG AAT GAG GCC TTG CTG AGC ATG GTG 1513
 E K K G D L A L D V L F R S I S E R D P 420
 GAG AAG AAA GGG GAC CTG GCC CTG GAC GTG CTC TTC AGA AGC ATT AGT GAA AGG GAC CCT 1573
 Y L V S Y L R Q Q N L * 432
 TAC CTC GTG TCC TAT CTT AGA CAG CAG AAT TTG TAA 1609
 ATAGAGTCAGTTAGGTAGTCTGGAAAGAGAGAAATCCAGCGTTCTATGGAAATGGATAAAACAGAAATGTGATCATTGAT 1688
 TTCACTGTTCAAGACAGAAGAAGACTCGGTAAACATCTATCACACAGGCTTCAGGACAGACTTGTAAACCTGGCATGTAC 1767
 CTATTGACTGTATCCTCATGCTTTCTCAAGAATGTCTGAAGAAGGTAGTAATATTCTTTAAATTCTTCAAC 1846
 ATTCGCTGATATATCACTATTCTATCCATTGACATGATTCTGAGACCCAGGATAAAAGGACATCCGGATAGGTGTGTT 1925
 TATGAAGGATGGGCCTGGAAAGGCAACTTTCTGATTAATGTGAAAAATAATTCTRTGGACACTCCGTTGAAGTA 2004
 TCACCTTCTCATRACTAAAAGCAGAAAAGCTAACAAAAGCTTCAGCTGAGGACACTCAAGGCATACTGATGACAGT 2083
 CTTTTTTTTTGTATGTTAGGACTTTAACCTTTATCTATGGCTACTGTTATTAGAACATGTAATGTTATTGCTG 2162
 AAAGAGAGCACAATAATGGGAGAAAATGCAACATGAGCAGAAAATTTCCACTGGTGTAGCCTGCTACAAGGA 2241
 GTTGTGGTTAAATGTTCTGGCAACTCCAGGAATACTGAGATGAAATGTGCTAAATCAACTCCACAGAACCCACCA 2320
 AAAAGAAAATCAGGGTAATTCTGCTTATCTGAGACAGACATTCTGGCATGTACCTACAAAAAATAGCCACTCT 2399
 GACATTGGATTCTACCATAGACTCTGCTTTGAGCCATTCTAGCTGCTTTGATTAATGTTCTGGCACACA 2478
 TATTTCCATCTTTATGTTAATCTGTTAAACAAAGTCTCTAGTAGACACCATCTGGTGAGTCAGTTTTTATG 2557
 GTGTATTTGAACCCATTCTGATAGTCTCTTTAACGGAAATTCCTACATTACGTTATGTAATTATTAATATGT 2636
 TAGGATTCTCTCAGTCAGCCAGTTGTTATGCTTTCTATTCTACTGTTATCACATTGACCACTAAAGTGGAA 2715
 TCTAGGCACTTTACCCATTAGATCTTACCTTTCTCATCTAGGATATAGTTATCTTACATAATCTTCTGT 2794
 ATCTTAAACCCATCAATAAAATTATATATATTTCTACTTTATCTCAGAAGATTAAAAACTCATGAGAAGAG 2873
 TAATCTGTTATGTTCTCAGATATTACCTTCTGCTCTCTCATTATTTCCAAATTTCCTCTGCAAATT 2952
 TCCACTTCTGATAGACGTTTTAGTTCTTCTGAGTGGCTGATAGGTACAGATTCTCTTATTTTGCTTCCCT 3031
 CTGAGGACATCTTCTCAGCTTCTCAGTGTGTTGCTTAGTATTTAGTTGACATTGTTCTGTT 3110
 CAGCAGTTCTTCTGATAGCTTCTGCTTCTGAGAATCTGAGCTTCTGAGATTCTCTTATTTTGCTTCCCT 3189
 TGTCTTTCTGTCAGATTCAAGGTATTCTTCTGAGTTCTGCTTCTGAGATTCTCTTATTTTGCTTCCCT 3268
 TTTATTCCCTTGGATTCTGCTCAATTCTAAATTGCACTTTCTGCTTCTGAGATTCTCTTCTGAGATTCTGCTT 3347
 ATTTCTAAAATACCTTTATTAGCCTGATTTCTCTTCTGAGATTCTCTGAGATTCTCTGAGATTCTCTG 3426
 ATATGCCAGAAGGCCTCAGATAAGAATTGAAAGAATACAGAAAACAAACTTTATATCTTCTCATGCTTCTA 3505
 CTGTAAAATTCATATGCTTCTACTCTAACCTAGTTGAAATCAACAGTCTGAGAATAGATGAAAATTGATGAA 3584
 TAGTGGAAATTCTTTAAATGAAACCTTACATGTGATTCTCTGCTTCTGAGACTCTTATGTGAAATGTTAGACTT 3663
 AATCAATCAATTATATTCTGTTCTCTGAGACTCTTATGTGAAATGTTAGACTTCTGTTCTG 3742
 CTAAATGTCCCTGATATTCTACTTATTAGAACATCTTCTGAGACTCTTCTGAGTGGTAATTAAATTCT 3821
 CTATTTCAAAATTGCTGGAGTGTTCACCTGTTGTCGTCCTGAGTCAGTGCATTCAACCTTTAAATT 3900
 TGGTCACTGATGATGTCAGTTCTAAATTCTGTTCTATATTAAATTCTGGCTTATATTCTATTCT 3979

FIG. 4B

TGCAAAATGTGTCAGCATTGCTTGGAGCTTTTTTTTCAAGACAGGGCTCAACTCTGTTACCCAGGCTGGAGT	4058
GCAGTGGTGGATCTCAGCTCACTGCACCTCTGCCTCTGGTTCAAGGCAATTATGTGCTCAGCCTCCTGAGTAGCT	4137
GGGATTACAGGCATGCACCAACAGGCCAGCTAATTGGTATTTAGTAGAGACAGAGTTTGCTATGTTGGCCA	4216
GGCTGGTTGAACTCCTGGCTCAAGTGAATCCACCCACCTCAGCCTCCAAAAGTGTGGATTACAGGCCACTACACC	4295
TGGCACATTGAGTATTTTTTTTTTTTGAGATGGAGTCGGCTCTGTCACTAGGCTGGAGTGCAGTGG	4374
TGTGATCTCAGCTCACTGCAGCCTCTGCTCCGGGCTCAAGGCAATTCTGCTCAGCCTCCTGAGTAGCTAGGACT	4453
ACAGGTGCATGCCAACACGCCCGCTAATTAAAAAATATTTAGTAGAGACAGGGTTCAACATTGGCCAG	4532
GATGGTCTCGATCTCCTGACCTCATGATCCACCCCGCTGGCTTCAAGTGTGGATTACAGGCATGAGCCACCGT	4611
GCCTGGCCTCATTTGAGTATTTATAATGTCTTTTAAAGTCTTGTAGATAATTCACTGTACATGTTATTCACT	4690
GTTTGGTGTCCACTGAGTTGTCAATTGCCAGACAGTGGAGATTTTCAAGCTCATCCTTGATTCTCAGTAGTTCCGA	4769
TATGTACCCCTCGACATGTGAATGTTATCTTGAGACTCTGTTTATTTGATCCACAGAAGATGTTATTATTATT	4848
TGGCTTCTGTGAACGTGGTCTTAATATCAGCTCATTTAAAAGCTTGCAGTGGTATTGGATCTATCCTGTGT	4927
GCCTATGAGATTGGGTGCAGTGTATCCTGTTAGCTCATTCTCAGGGCTTGAATGTGAATTAGGACCAGCGCAATGA	5006
ATGCTCAAGTTGGGGTTGGCGTTAGAATTCAAAAGTCTTATATGCTCAG	5059

FIG. 4C

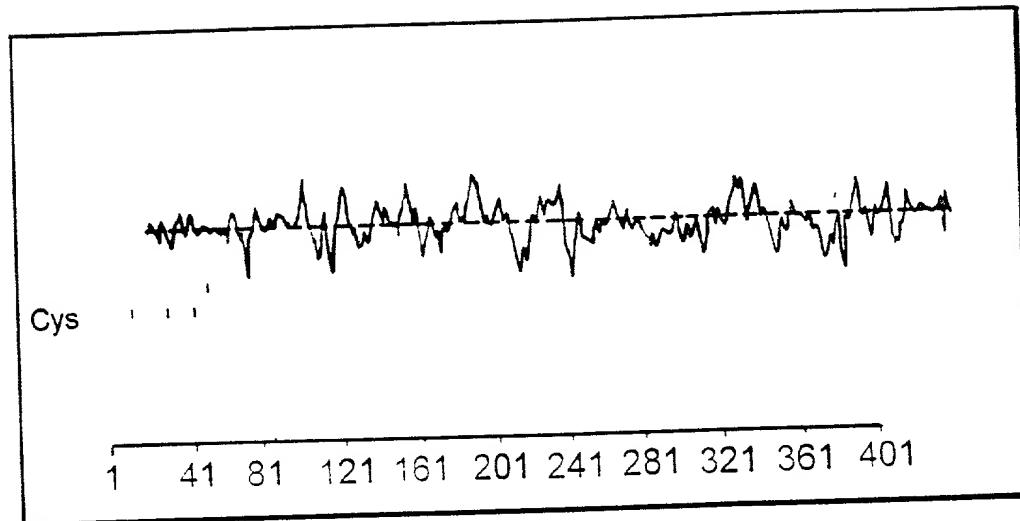


FIG. 5

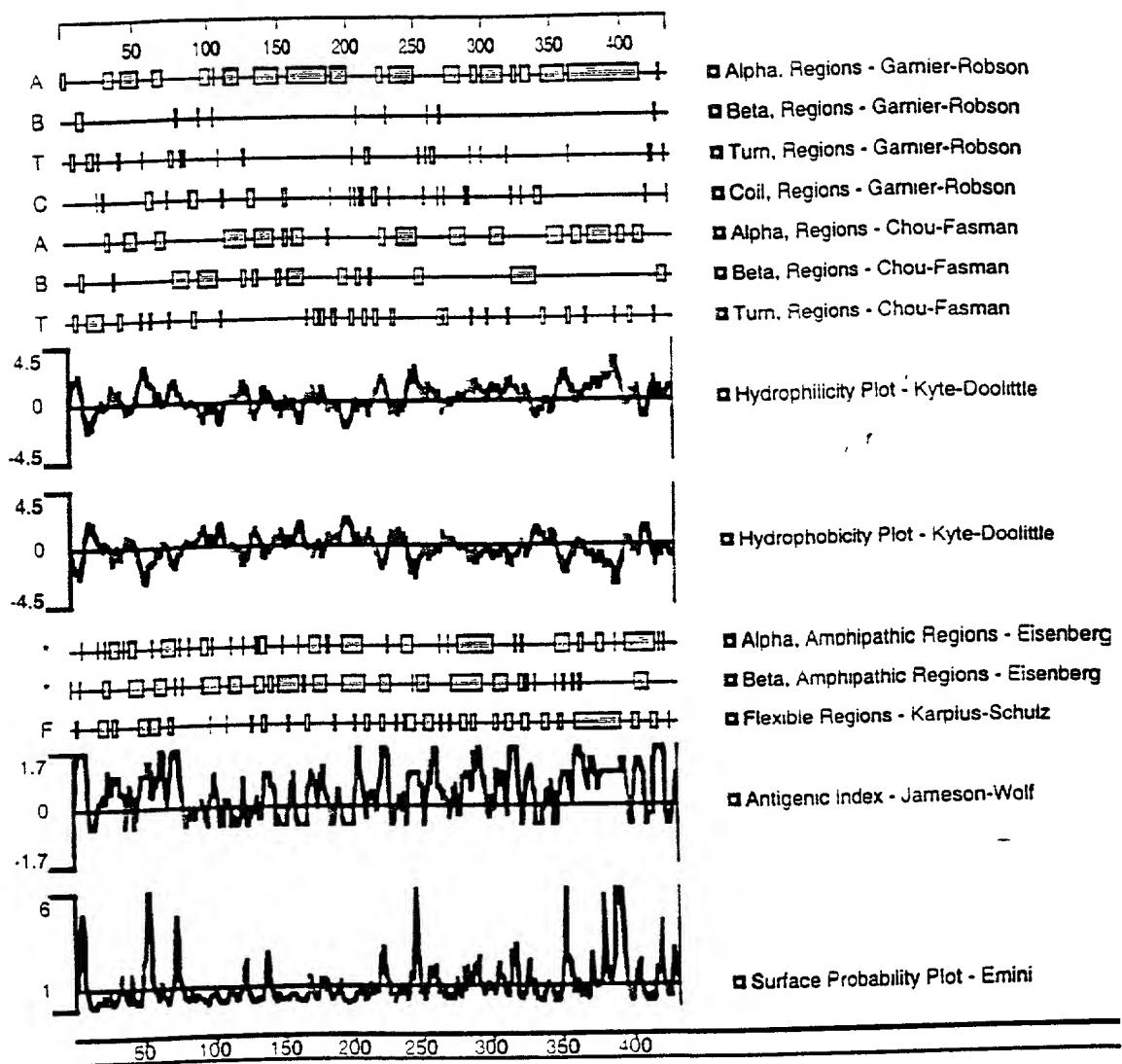


FIG. 6

CARD8	P P F S G A - A F V K E N H R Q L Q A R M G D - - - L K G Y L D D L Q D N E V L T E N E K E L V E
CARD7	L D A P O L L H F V D Q Y R E Q L I A R V T - - - S - V E V V L D K L H G - Q V L S Q E Q Y E R V -
ASC	S I A A K P G L H F I D Q H R A A L I A R V T - - - N - V E W L L D A L Y G - K V L T D E Q Y Q A V -
APAF1	M D A K A R N C L L Q - H R E A L E K D I K T S Y - - - I M D H M I S D G F L T I S E E E K V -
CARD4	E S - H P H I Q I L L K S N R E L L V T H I R N T Q C L - - - V D N I L L K N D Y F S A E D A E I W C
CASP1	W A - - - D - K V L K E K R K L F I R S M G E G T - I N G I L D E I L L Q T R V L N K E E M E K V K
RICK	I A - Q Q W I Q - - - S K R E D I V N Q M T E A - C L N Q S L D A L L S R D L I M K E D Y E L V S
CARD8	Q E K - T R Q S K N E A L L S M V E K K G D L A L D V I L F R S I S E - R D P Y L - V S Y L - R
CARD7	L I A E N T R P S Q M R K L F S L S Q S W D R K C K D G I Y Q A L K E - T H P H I - I M E L - - W
ASC	R A E P T N P S K M R K L F S F T P A W N Y T C K D L L L O A L R E - S Q S Y L - V E D D L E R S
APAF1	R N E P T Q Q Q R A A M L I K M I L K K D N D S Y Y S F Y N A L - - L H E G Y K D L A A B L H D
CARD4	- I A C P T Q P D K V R K I L D L V Q S K G E E V S E F F F L Y L L Q Q L A D A Y Y D L R P W L L E
CASP1	R E N A T V M D K T R A L I D S V I P K G A Q A C Q I C I T Y I C E - E D S Y L - A G T L - G L
RICK	- T K P T R T S K V R Q I I D T T D I Q G E E F A K V I V Q K L K D N K Q - - M G I Q D Y P E I

Fig. 7

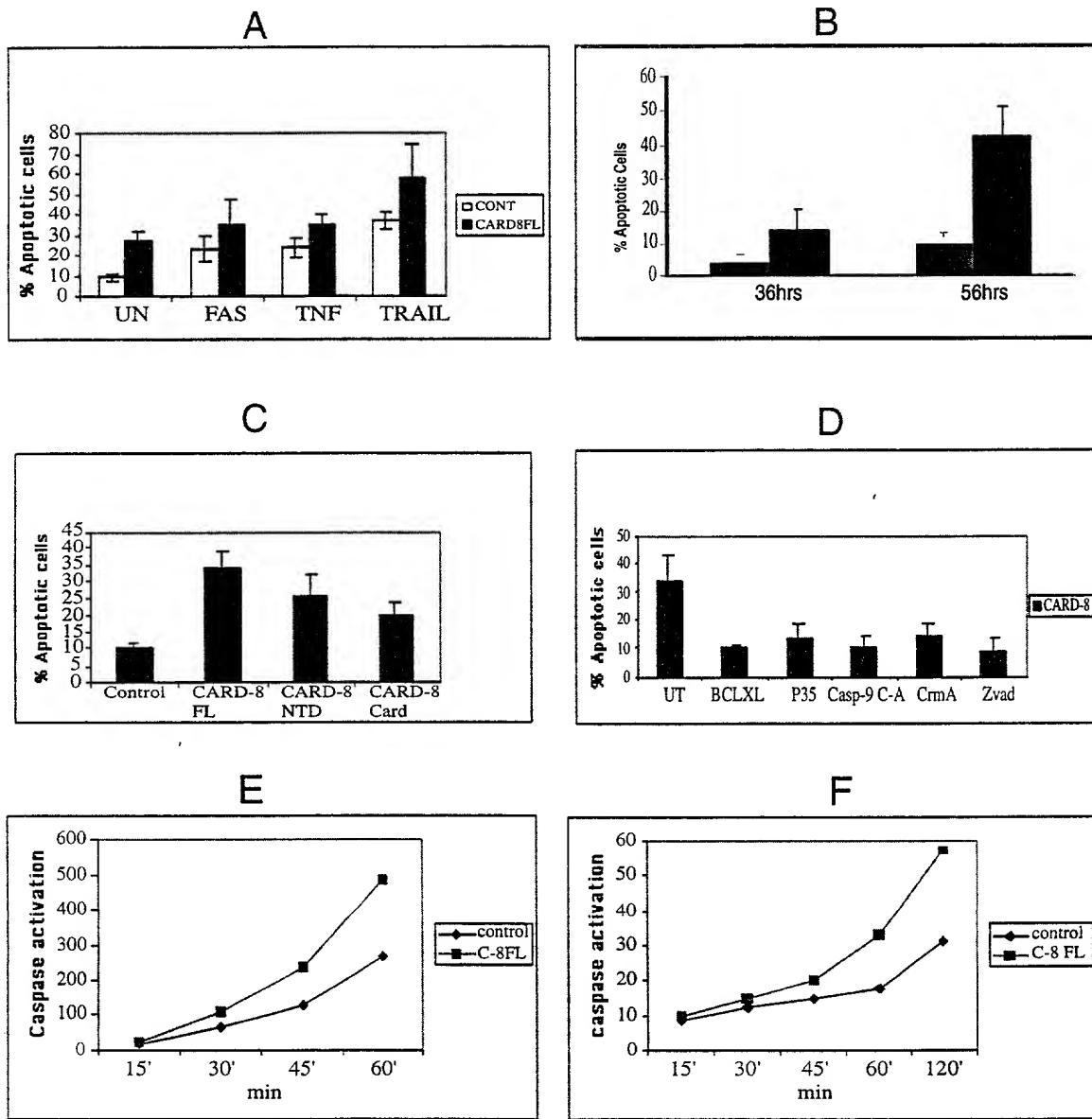
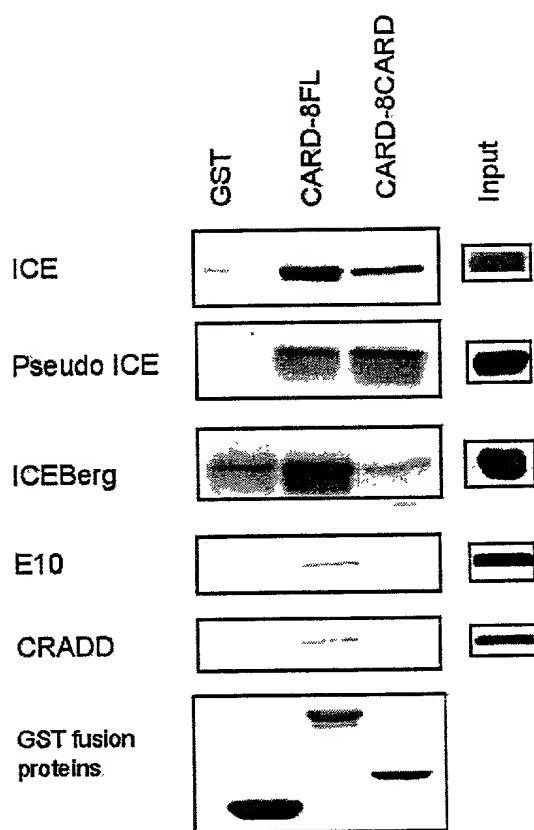
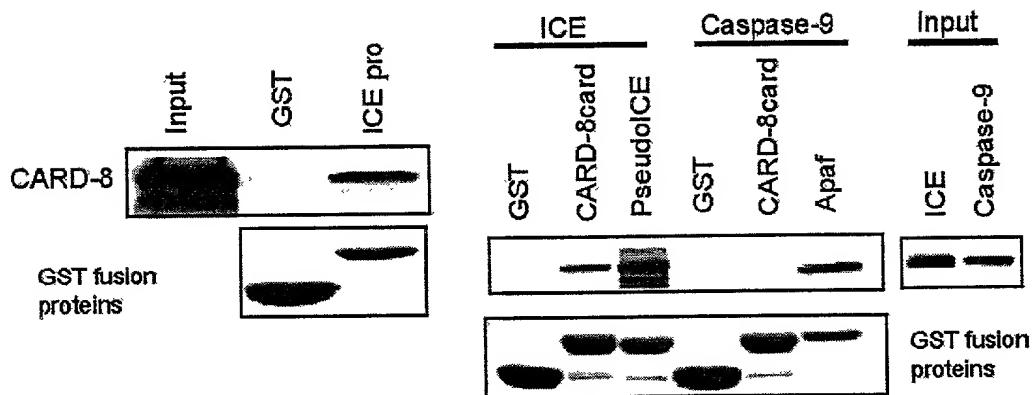


Fig. 8

A



B



C

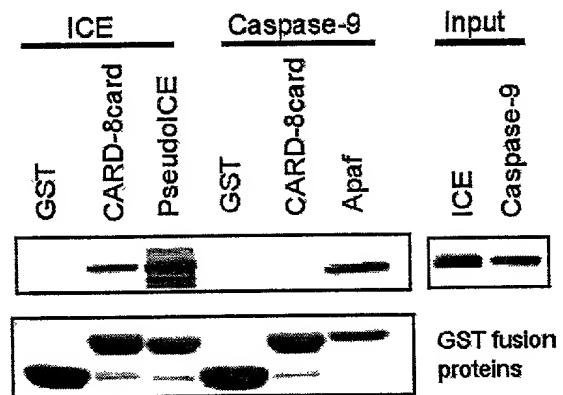
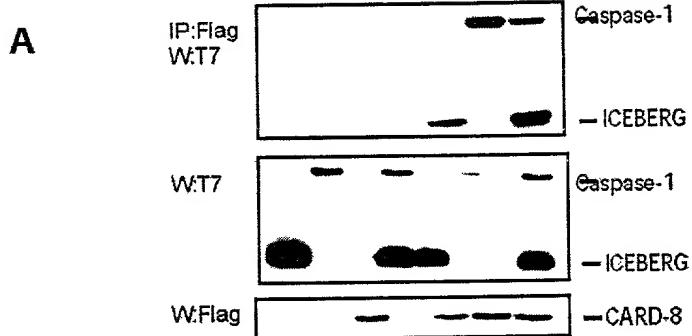


Fig. 9

T7 ICEBERG	+	-	-	+	+	-	-	+
T7Caspase-1 C-A	-	+	-	+	-	+	+	+
Flag CARD-8	-	-	+	-	+	+	+	+



T7Pseudo ICE	+	-	-	+	+	-	-	+
T7Caspase-1 C-A	-	+	-	+	-	+	+	+
Flag CARD-8	-	-	+	-	+	+	+	+

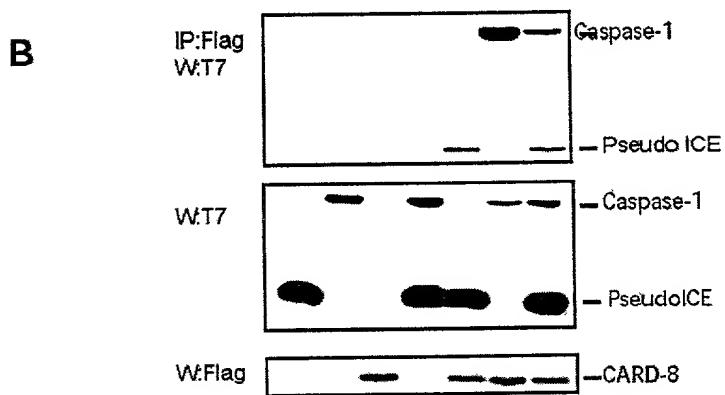


Fig. 10

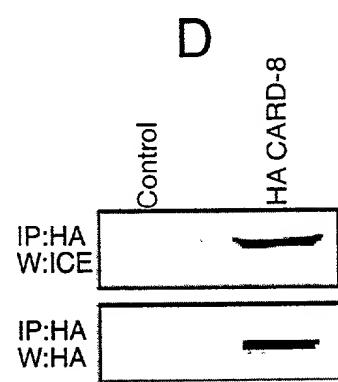
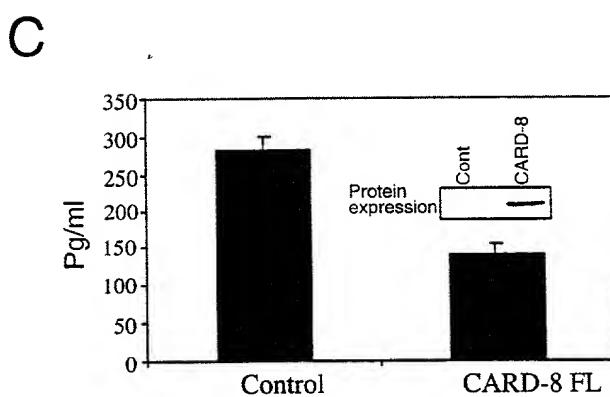
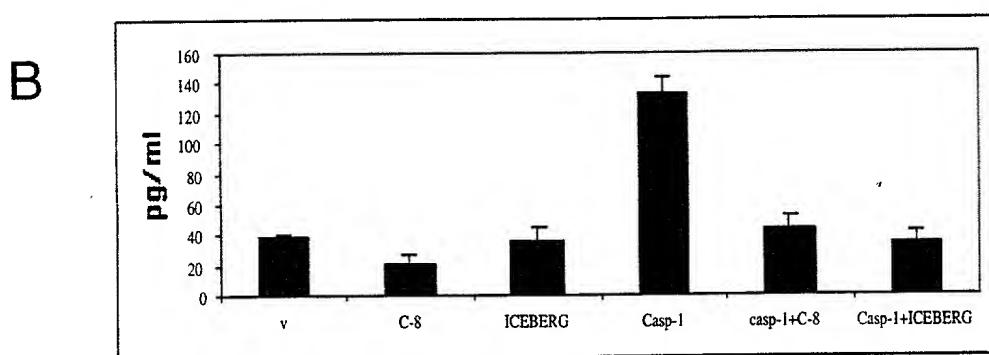
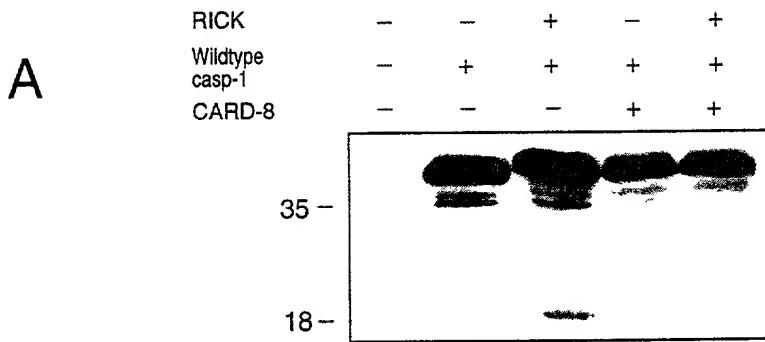


Fig. 11